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Indian Standard

RADIAL BALL BEARINGS WITH FLANGED OUTER RING — FLANGE DIMENSIONS

UDC 621·822·74·006·78

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

June 1992

Price Group 3

IS 13406 : 1992
ISO 8443 : 1985

Indian Standard

RADIAL BALL BEARINGS WITH FLANGED OUTER RING — FLANGE DIMENSIONS

NATIONAL FOREWORD

This Indian Standard, which is identical with ISO 8443 : 1985 'Radial ball bearings with flanged outer ring — Flange dimensions', issued by the International Organization for Standardization (ISO), was adopted by the Bureau of Indian Standards on the recommendations of the Rolling Bearings Sectional Committee (LMD 12) and approval of the Light Mechanical Engineering Division Council.

In this adopted standard, certain terminology and conventions are not identical with those used in the Indian Standard. Attention is specially drawn to the following:

a) Wherever the words 'International Standard' appear referring to the standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker in ISO Standard while in Indian Standard the current practice is to use point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their place are listed below, alongwith their degree of equivalence:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 15 : 1981	IS 5669 : 1987 General plan of boundry dimensions for radial rolling bearings (*first revision*)	Identical
ISO 492 : 1986	IS 5692 : 1988 Tolerances for radial rolling bearings (*first revision*)	Equivalent
ISO 582 : 1979	IS 5934 : 1987 Chamfer dimensions limits for rolling bearings (*first revision*)	Identical
ISO 1224 : 1984	IS 6548 : 1992 Rolling bearings — Instrument precision bearings	Identical

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1 Scope and field of application

This International Standard lays down flange dimensions for a selection of single row radial or angular contact groove ball bearings with flanged outer ring. All other boundary dimensions for complete bearings are given in ISO 15.

Tolerances for the flanges are given in Addendum 1 to ISO 492. All other tolerances for the bearings are given in ISO 492 and ISO 582. For instrument precision bearings, all tolerances are specified in ISO 1224.

2 References

ISO 15, *Rolling bearings — Radial bearings — Boundary dimensions — General plan.*

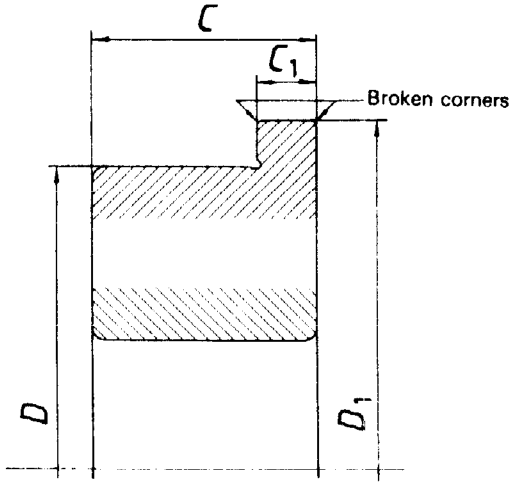
ISO 492, *Radial bearings — Tolerances.*

ISO 492/Add. 1, *Radial bearings — Tolerances*
ADDENDUM 1: Radial ball bearings with flanged outer ring — Flange tolerances.[1]

ISO 582, *Rolling bearings — Metric series — Chamfer dimension limits.*

ISO 1224, *Rolling bearings — Instrument precision bearings.*

3 Symbols



D = bearing outside diameter, nominal
D_1 = flange outside diameter, nominal
C = outer ring width, nominal
C_1 = flange width, nominal

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[1] At present at the stage of draft

4 Dimensions

Tables 1 to 4 give flange dimensions for groove ball bearings grouped by diameter series and dimension series in accordance with ISO 15.

Table 1 — Diameter series 7

Dimensions in millimetres

D	D_1	Dimension series
		17
		C_1
4	4,8	0,35
5	6	0,4
6	7,2	0,6
7	8,2	0,6
8	9,2	0,6
10	11,2	0,6
11	12,2	0,6
12	13,2	0,6
14	15,5	0,8
15	16,5	0,8

Table 2 — Diameter series 8

Dimensions in millimetres

D	D_1	Dimension series		
		18	28	38
		C_1		
2,5	3,3	0,3	—	—
3	3,8	0,3	—	0,45
4	5	0,4	—	0,6
5	6,1	0,5	—	0,6
6	7,1	0,5	—	0,8
7	8,1	0,5	0,7	0,8
9	10,3	0,6	1	1
11	12,5	0,8	1	1
13	15	1	1,1	1,1
14	16	1	1,1	1,1
16	18	1	1,1	1,3
17	19	1	1,1	1,3
19	21	1	1,3	1,5

Table 3 — Diameter series 9

Dimensions in millimetres

D	D_1	Dimension series	
		19	39
		C_1	
4	5	0,5	0,6
5	6,5	0,6	0,8
6	7,5	0,6	0,8
7	8,5	0,7	0,9
8	9,5	0,7	0,9
11	12,5	1	1,2
13	15	1	1,2
15	17	1,2	1,5
17	19	1,2	1,5
19	22	1,5	1,8
20	23	1,5	1,8
22	25	1,5	2

Table 4 — Diameter series 0, 2 and 3

Dimensions in millimetres

D	Diameter series					
	0		2		3	
	Dimension series					
	10		02		03	
	D_1	C_1	D_1	C_1	D_1	C_1
6	7,5	0,6	—	—	—	—
7	8,5	0,7	—	—	—	—
8	9,5	0,7	—	—	—	—
9	10,5	0,7	—	—	—	—
10	—	—	11,5	1	—	—
12	13,5	1	—	—	—	—
13	—	—	15	1	15	1
14	16	1	—	—	—	—
16	—	—	18	1	18	1
17	19	1,2	—	—	—	—
19	22	1,5	22	1,5	22	1,5
22	25	1,5	25	1,5	25	1,5
24	27	1,5	26	2	—	—
26	28	2	28	2	29	2
28	30	2	—	—	30,25	2,25
30	—	—	32,25	2,25	32,5	2,5
32	34,25	2,25	34,5	2,5	—	—
35	37,5	2,5	37,75	2,75	37,75	2,75
37	—	—	—	—	40	3
40	—	—	43	3	—	—
42	45	3	—	—	45	3
44	47	3	—	—	—	—
47	50	3	50,5	3,5	50,5	3,5
50	—	—	53,5	3,5	—	—
52	55	3	55,75	3,75	55,75	3,75
55	58,25	3,25	—	—	—	—
56	—	—	—	—	60	4
58	61,25	3,25	62	4	—	—
62	65,5	3,5	66	4	66	4
65	—	—	69,25	4,25	—	—
68	71,75	3,75	—	—	72,25	4,25
72	—	—	76,25	4,25	76,5	4,5
75	79	4	—	—	79,5	4,5
80	84	4	84,5	4,5	85	5
85	—	—	89,75	4,75	—	—
90	94,5	4,5	95	5	95	5
95	99,5	4,5	—	—	—	
100	104,5	4,5	105,5	5,5	105,5	5,5
110	115	5	115,5	5,5	115,5	5,5
115	120	5	—	—	—	—
120	—	—	126	6	126	6
125	130,5	5,5	131	6	—	—
130	135,5	5,5	136,5	6,5	136,5	6,5
140	146	6	146,5	6,5	147	7
145	151	6	—	—	—	—
150	156	6	157	7	157,5	7,5
160	166,5	6,5	167,5	7,5	167,5	7,5
170	177	7	178	8	178,5	8,5
180	187	7	188,5	8,5	188,5	8,5
190			199	9	199	9

Table 4 *(concluded)*

Dimensions in millimetres

D	Diameter series					
	0		2		3	
	Dimension series					
	10		02		03	
	D_1	C_1	D_1	C_1	D_1	C_1
200	208,5	8,5	209,5	9,5	209,5	9,5
210	218,5	8,5	—	—	—	—
215	—	—	225	10	225	10
225	234	9	—	—	236	11
230	—	—	240	10	—	—
240	249,5	9,5	—	—	251	11
250	—	—	261	11	—	—
260	270,5	10,5	—	—	272	12
270	—	—	282	12	—	—
280	291,5	11,5	—	—	294	14

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